

## 1 ABSTRACT OF THE DISCLOSURE

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3 Methods and apparatus for transporting a synchronous or  
4 plesiochronous signal over a packet network. The methods of the  
5 invention include providing incoming and outgoing packet counters  
6 at the "local" user-network-interface (UNI) where the packets are  
7 to be reassembled into a synchronous or plesiochronous signal.  
8 According to the basic method of the invention, the UNI is  
9 provided with an adjustable clock and the clock rate is adjusted  
10 by comparing the incoming packet count with the outgoing packet  
11 count. In particular, if the outgoing packet count is smaller  
12 than the incoming packet count, the clock rate is increased. If  
13 the outgoing packet count is larger than the incoming packet  
14 count, the clock rate is decreased. In order to minimize delay in  
15 clock adjustments, a "gear shift" adjustment algorithm is  
16 provided. The apparatus of the invention includes a phase locked  
17 loop (PLL) embodied in a programmable logic device (PLD).